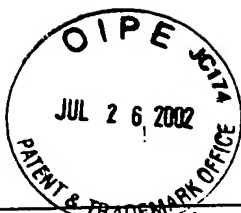


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## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

TECH CENTER 1600/2900

Applicant's or agent's file reference <b>0099350-WSmi</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/EP 00/ 08837</b>	International filing date (day/month/year) <b>11/09/2000</b>	(Earliest) Priority Date (day/month/year) <b>23/09/1999</b>
Applicant <b>MERCK PATENT GMBH</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☒ contained in the international application in written form.

☒ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☒ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

## 4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**HEPARANASE-2, A MEMBER OF THE HEPARANASE PROTEIN FAMILY**

## 5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. 1

☐ as suggested by the applicant.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP 00/08837

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/56 C12N15/62 C12N9/24 C07K16/40 C12Q1/68  
A61K38/47 A61K48/00 G01N33/50

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K C12Q A61K G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, STRAND, EMBL, BIOSIS, EMBASE, MEDLINE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 43830 A (FAIRBANKS MICHAEL B ; HEINRIKSON ROBERT L (US); MILDNER ANA M (US);) 2 September 1999 (1999-09-02) the whole document	4
Y	page 9, line 13-18	1-11
X	KOSIR M A ET AL.: "Degradation of basement membrane by prostate tumor heparanase" JOURNAL OF SURGICAL RESEARCH, vol. 81, no. 1, January 1999 (1999-01), pages 42-47, XP002155606	1-3
Y	abstract page 45, right-hand column, line 13 -page 46, left-hand column, line 18	4-11
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

19 December 2000

Date of mailing of the international search report

05/01/2001

Name and mailing address of the ISA

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Authorized officer

van de Kamp, M

# INTERNATIONAL SEARCH REPORT

Inter national Application No

PCT/EP 00/08837

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KOSIR M A ET AL.: "Human prostate carcinoma cells produce extracellular heparanase" JOURNAL OF SURGICAL RESEARCH, vol. 67, no. 1, January 1997 (1997-01), pages 98-105, XP002155605	1-3
Y	abstract page 102, right-hand column, line 23 -page 103, left-hand column, line 15	4-10
X	DATABASE EMBL 'Online! EMBL; ID AI222323, AC AI222323, 30 November 1998 (1998-11-30) STRAUSBERG R: "qg97h02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843155 3', mRNA sequence" XP002155607	4
Y	Note: 99 % nt seq ident with SEQ ID NO:1 in 121 nt overlap. the whole document	1-11
X	WO 99 11798 A (HADASIT MED RES SERVICE ;PECKER IRIS (IL); FEINSTEIN ELENA (IL); F) 11 March 1999 (1999-03-11)	4
Y	the whole document page 17, line 4-20	1-11
X	WO 99 21975 A (HAMDFOR BRENTON JAMES ;UNIV AUSTRALIAN (AU); FREEMAN CRAIG GEOFFRE) 6 May 1999 (1999-05-06)	4
Y	the whole document page 13, line 4-9	1-11
T	MCKENZIE E ET AL.: "Cloning and expression profiling of hpa2, a novel mammalian heparanase family member" BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol. 276, no. 3, 5 October 2000 (2000-10-05), pages 1170-1177, XP002155087 Note: 99.8 % nt seq ident with SEQ ID NO:1 in 1779 nt overlap, 99.7 % aa seq ident with SEQ ID NO:2 in 592 aa overlap. the whole document page 1175, right-hand column, line 2-4	1-11

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/08837

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9943830	A	02-09-1999	AU 2759199 A	15-09-1999
WO 9911798	A	11-03-1999	US 5968822 A	19-10-1999
			AU 9125898 A	22-03-1999
			CN 1272886 T	08-11-2000
			EP 0998569 A	10-05-2000
			NO 996228 A	28-02-2000
			US 6153187 A	28-11-2000
WO 9921975	A	06-05-1999	AU 1010999 A	17-05-1999
			BR 9813296 A	22-08-2000
			EP 1032656 A	06-09-2000
			ZA 9809824 A	24-06-1999